

Thymidylate Synthase (5-FU Resistance Marker) Antibody

Mouse Monoclonal Antibody [Clone TYMS/1884]

Catalog No	Format	Size
7298-MSM4-P0	Purified Ab with BSA and Azide at 200ug/ml	20 ug
7298-MSM4-P1	Purified Ab with BSA and Azide at 200ug/ml	100 ug
7298-MSM4-P1ABX	Purified Ab WITHOUT BSA and Azide at 1.0mg/ml	100 ug

Applications	Tested Dilution	Note
Flow Cytometry (Flow)	1-2ug/million cells	
Immunofluorescence (IF)	1-3ug/ml	
Immunohistochemistry (IHC)	1-2ug/ml	30 min at RT. Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95°C followed by cooling at RT for 20 minutes
Western Blot (WB)	2-4ug/ml	

Product Details

Clone	TYMS/1884
Gene Name	TYMS
Immunogen	Recombinant human thymidylate synthase protein fragment (around aa 60-174) (exact sequence is proprietary)
Host	Mouse
Clonality	Monoclonal
Isotype / Light Chain	IgG2c / Kappa
Mol. Weight of Antigen	36kDa
Cellular Localization	Cytoplasm, Mitochondrion, Mitochondrion inner membrane, Mitochondrion matrix, Nucleus
Species Reactivity	Human
Positive Control	5-FU-resistant colon carcinoma cell lines (NCI H630R10, MCF-Ad5 and MCF-Ad10. Testicular carcinomas., MOLT4; Ramos, NCI H630R1); 5-FU-resistant breast cancer cell lines

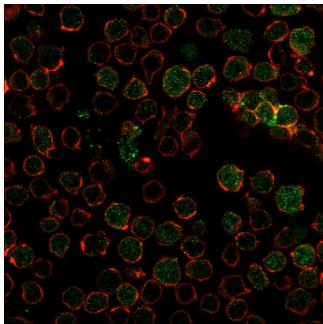
*Optimal dilution for a specific application should be determined.

Product Images for Thymidylate Synthase (5-FU Resistance Marker) Antibody

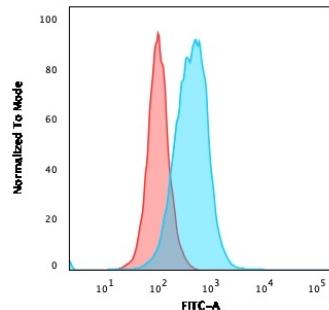


SDS-PAGE Analysis Purified Thymidylate Synthase Mouse Monoclonal Antibody (TYMS/1884). Confirmation of Purity and Integrity of Antibody.

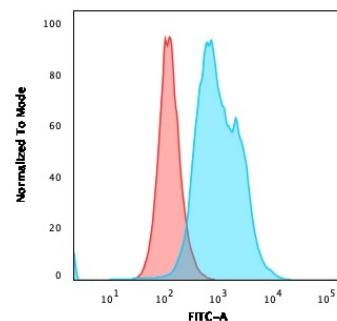
Western Blot Analysis of human HeLa cell lysate using Thymidylate Synthase Mouse Monoclonal Antibody (TYMS/1884).



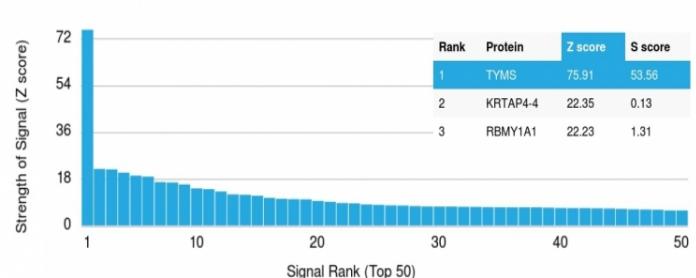
Immunofluorescence Analysis of PFA-fixed Ramos cells labeling PU.1 with Thymidylate Synthase Mouse Monoclonal Antibody (TYMS/1884) followed by Goat anti-Mouse IgG-CF488 (Green). Membrane is labeled with Phalloidin (Red).



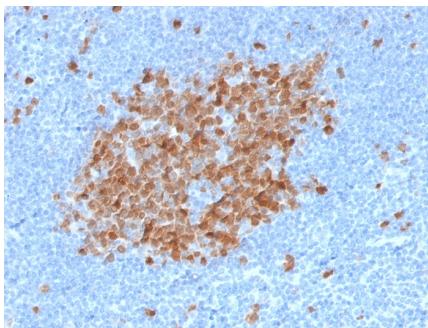
Flow Cytometric Analysis of PFA-fixed Ramos cells. Thymidylate Synthase Monospecific Mouse Monoclonal Antibody followed by goat anti-Mouse IgG-CF488 (Blue); Isotype Control (Red).



Flow Cytometric Analysis of PFA-fixed MOLT4 cells. Thymidylate Synthase Monospecific Mouse Monoclonal Antibody followed by goat anti-Mouse IgG-CF488 (Blue); Isotype Control (Red).



Analysis of Protein Array containing more than 19,000 full-length human proteins using Thymidylate Synthase Monospecific Mouse Monoclonal Antibody (TYMS/1884) Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProtTM array. Z-scores are described in units of standard deviations (SD?)s above the mean value of all signals generated on that array. If targets on HuProtTM are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD?)s between the Z-score. S-score therefore represents the relative target specificity of a MAb to its intended target. A MAb is considered to be specific to its intended target, if the MAb has an S-score of at least 2.5. For example, if a MAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAb to protein X is equal to 29.



Formalin-fixed, paraffin-embedded human Tonsil stained with Thymidylate Synthase Mouse Monoclonal Antibody (TYMS/1884).

Specificity & Comments

It recognizes a protein of 36kDa, identified as Thymidylate Synthase (TS) (EC 2.1.1.45). It converts deoxyuridine monophosphate (dUMP) to deoxythymidine monophosphate (dTMP), which is essential for DNA biosynthesis. TS is also a critical target for the fluoropyrimidines, an important group of antineoplastic drugs that are widely used in the treatment of solid tumors. Both 5-FU and fluorodeoxyuridine are converted in tumor cells to FdUMP which inactivates TS by formation of a ternary covalent complex in the presence of the folate cofactor 5,10-methylenetetrahydrofolate. Expression of TS protein has been reported to associate with response to 5-fluorouracil (5-FU) in human colorectal, gastric, head and neck, and breast carcinomas.

Limitations and Warranty

This antibody is available for research use only and is not approved for use in diagnosis. There are no warranties, expressed or implied, which extend beyond this description. Company is not liable for any personal injury or economic loss resulting from this product.

Supplied As

200ug/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA at 1.0mg/ml.

Storage and Stability

Antibody with azide - store at 2 to 8°C. Antibody is stable for 24 months. ,Non-hazardous. No MSDS required.

Research Areas

Cardiovascular